Filing Date: February 19, 2004

Title: MEMORY DEVICE HAVING TERMINALS FOR TRANSFERRING MULTIPLE TYPES OF DATA

REMARKS

This paper responds to the Office Action mailed on December 13, 2005.

Claims 1, 6, 10 and 11 are amended. Claims 18-55 are canceled without disclaimer or prejudice. Claims 56-68 are added. As a result, claims 1-17 and 56-68 are now pending in this application.

Interview Summary

Applicant thanks Examiner Alexander Sofocleous for the courtesy of a telephone interview on December 8, 2005 with Applicant's representative Viet V. Tong.

The Examiner identified several groups of claims regarding a restriction requirement and requested Applicant's representative to elect one of groups for prosecution. Applicant's representative provisionally elected to prosecute the group that includes claims 1-17.

Affirmation of Election

Restriction to one of the following claims was required:

- I. Claims 1-17, drawn to a device comprising a memory array and auxiliary circuit, classified in class 365, subclass 189.01. (Read/Write circuit)
- Claims 18-22 and 44-47, drawn to a system comprising a memory array and II. controller and external terminals with accompanying method, classified in class 365, subclass 129, (Using particular element).
- Claims 23-33, drawn to a method for transferring data, classified in class 710, III. subclass 1. (Input/Output data processing → input/output expansion).
- Claims 34-43, drawn to a method transferring groups of data to a memory array, IV. classified in class 365, subclass 190. (Read/Write circuit → for complementary information).
- Claims 48-55, drawn to a method for transferring groups of data on external V. terminals, classified in class 365, subclass 189.03. (Read/Write circuit → plural use of terminal).

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As provisionally elected by Applicant's representative, Viet V. Tong, on December 8, 2005, Applicant elects to prosecute the invention of Group I, claims 1-17.

The claims of the non-elected inventions, claims 18-55, are hereby canceled without disclaimer or prejudice. Applicant reserves the right to file continuations or divisions having claims directed to the non-elected inventions.

In the specification

The specification is amended only to match the labels described in the text with labels shown in the drawings for consistency. The amendment does not introduce new matter.

§102 Rejection of the Claims

Claims 1, 6, 7 and 11 were rejected under 35 U.S.C. § 102(b) for anticipation by Cypher (U.S. 6,301,680).

Applicant respectfully traverses.

Each of the independent claims 1, 6, and 11 is amended and recites, among other things, "wherein at least one of the data lines is configured for serially transferring at least one bit of the data with at least one bit of the auxiliary information". Applicant cannot find in Cypher "wherein at least one of the data lines is configured for serially transferring at least one bit of the data with at least one bit of the auxiliary information". Accordingly, Applicant requests reconsideration and withdrawal of the rejection, and allowance of claims 1, 6, and 11 and dependent claim 7.

Claims 1, 6, 7, 8 and 11 were rejected under 35 U.S.C. § 102(b) for anticipation by Cypher (U.S. 6,304,992).

Applicant respectfully traverses.

Each of the independent claims 1, 6, and 11 is amended and recites, among other things, "wherein at least one of the data lines is configured for serially transferring at least one bit of the data with at least one bit of the auxiliary information". Applicant cannot find in Cypher "wherein at least one of the data lines is configured for serially transferring at least one bit of the data with at least one bit of the auxiliary information". Accordingly, Applicant requests

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reconsideration and withdrawal of the rejection, and allowance of claims 1, 6, and 11 and dependent claims 7 and 8.

Claims 1-7, 9 and 11-17 were rejected under 35 U.S.C. § 102(a) or 35 U.S.C. 102(e) for anticipation by Choi et al. (U.S. Publication No. 2005/0165999, hereinafter Publication '999).

Applicant respectfully traverses.

Each of the independent claims 1, 6, and 11 recites a plurality of data lines to transfer "both data and auxiliary information". Publication '999 teaches one group lines to transfer data and another of groups of lines to transfer auxiliary information. Publication '999 teaches data lines to transfer data (e.g. data lines 194 in FIG. 1; and data indicated by DQ in FIG. 2). Publication '999 teaches different lines (not the data lines) to transfer auxiliary information (e.g. strobe lines 184 and 194 in FIG. 1; and auxiliary information indicated by WDQS in FIG 2). Thus, Publication '999 teaches data lines to transfer data and different lines to transfer auxiliary information. In contrasts, each of the independent claims 1, 6, and 11 of the present application recites data lines to transfer "both data and auxiliary information". Accordingly, claims 1, 6, and 11 and their dependent claims are not anticipated by Publication '999. Therefore, Applicant requests reconsideration and withdrawal of the rejection, and allowance of claims 1-7, 9, 11-17.

Double Patenting Rejection

Claims 1-5, 6, 7, 9 and 11-15 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 8-12 of co-pending Application, U.S. Publication No. 2005/0165999.

Applicant respectfully traverses.

Each of the independent claims 1, 6, and 11 recites a plurality of data lines to transfer "both data and auxiliary information". Applicant cannot find in claims 8-12 of the U.S. Publication No. 2005/0165999 a plurality of data lines to transfer "both data and auxiliary information". Accordingly, Applicant requests reconsideration and withdrawal of the double patenting rejection, and allowance of claims 1-7, 9, 11-17.

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Allowable Subject Matter

Claim 10 was objected to as being dependent upon a rejected base claim, but was indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 10 is rewritten in independent form as suggested by the office action. The rewriting does not alter the scope of claim 10. Thus, claim 10 is now in condition for allowance.

New Claims

Applicant believes that new claims 56-68 are not anticipated by the cited art. Accordingly, Applicant requests consideration and allowance of claims 56-68.

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CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (612) 373-6969 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

JOO S CHOI

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Date 13 March 2006

Viet V. Tong

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this // day of March, 2006.

NATE GANNON

Signature

Name